FIG. 1A

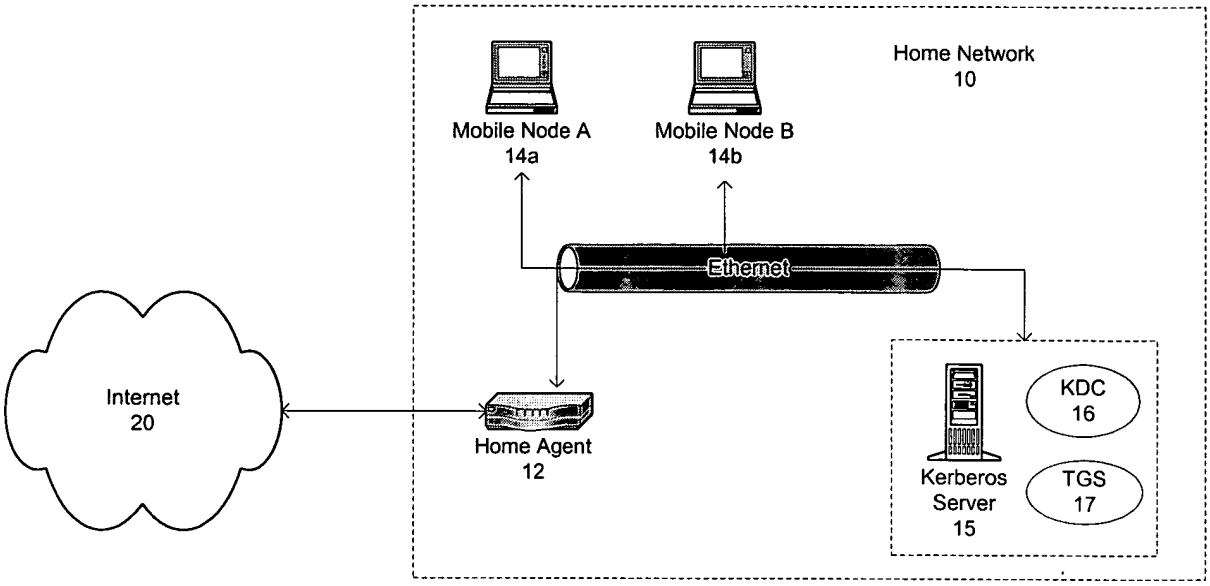

Home Network
10
Mobile Node A
14a
Mobile Node B
14b
Ethernet
Internet
20
Home Agent
12
KDC
16
Kerberos
Server
15
TGS
17

FIG. 1B

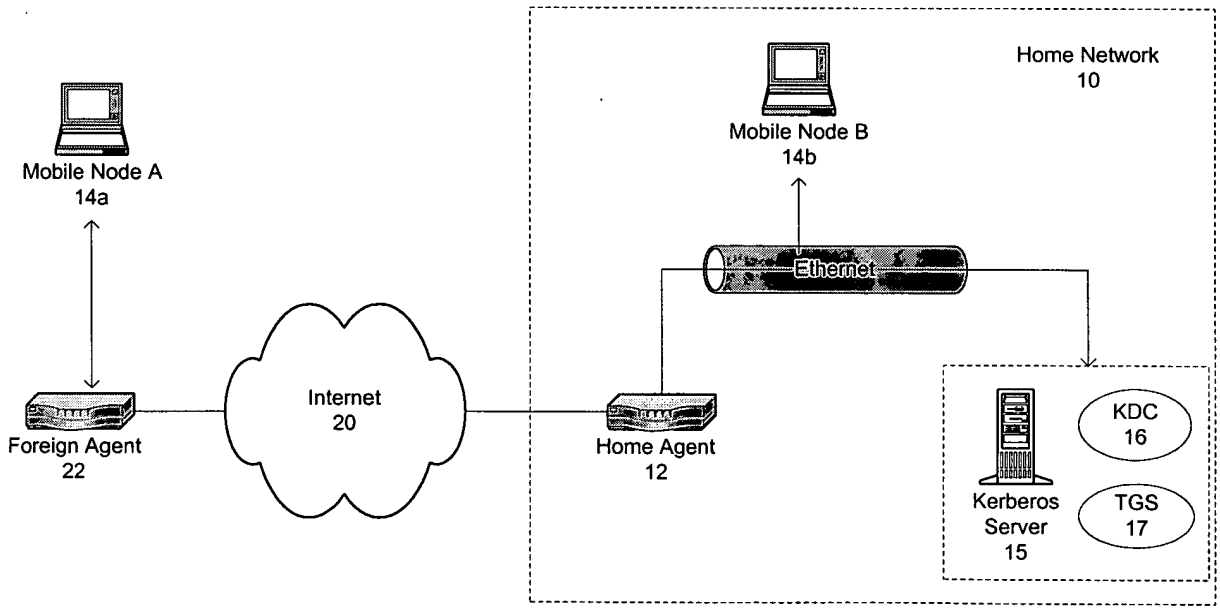

Home Network
10
Mobile Node A
14a
Mobile Node B
14b
Ethernet
Internet
20
Foreign Agent
22
Home Agent
12
KDC
16
Kerberos
Server
15
TGS
17

FIG. 2

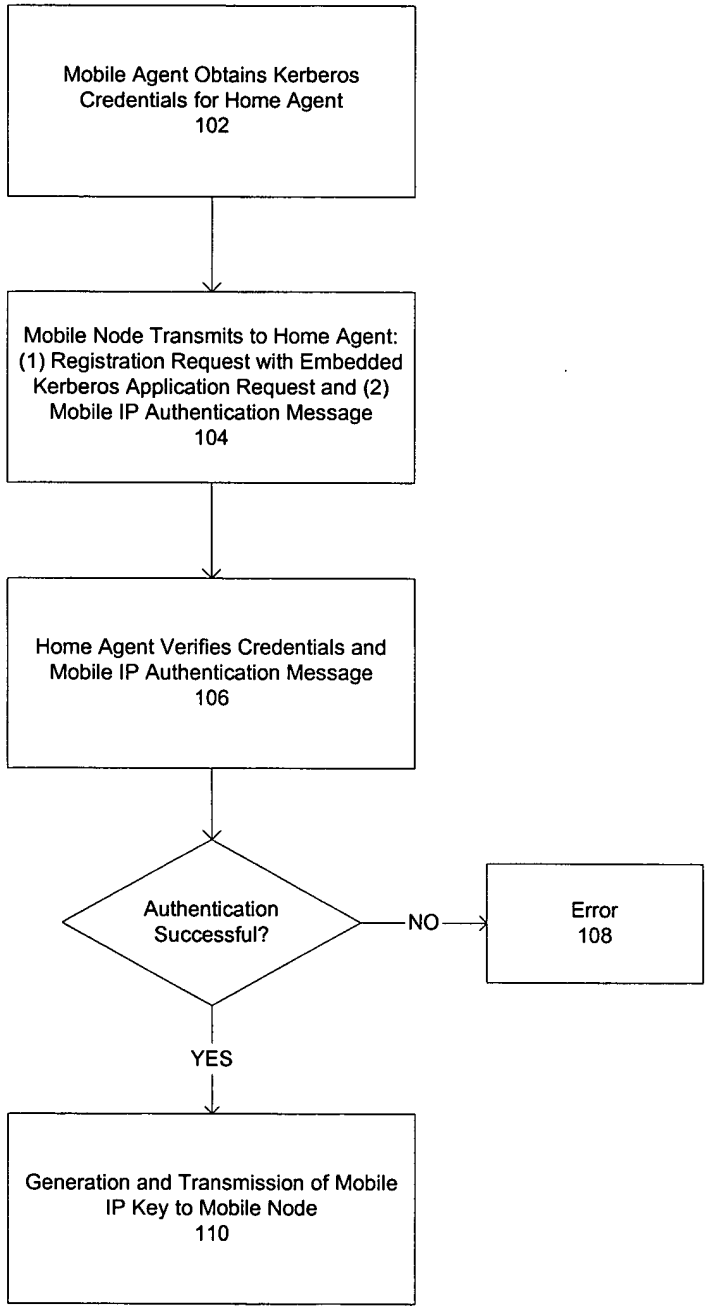

Mobile Agent Obtains Kerberos Credentials for Home Agent
102
Mobile Node Transmits to Home Agent: (1) Registration Request with Embedded Kerberos Application Request and (2) Mobile IP Authentication Message
104
Home Agent Verifies Credentials and Mobile IP Authentication Message
106
Authentication Successful?
NO
Error
108
YES
Generation and Transmission of Mobile IP Key to Mobile Node
110

FIG. 3

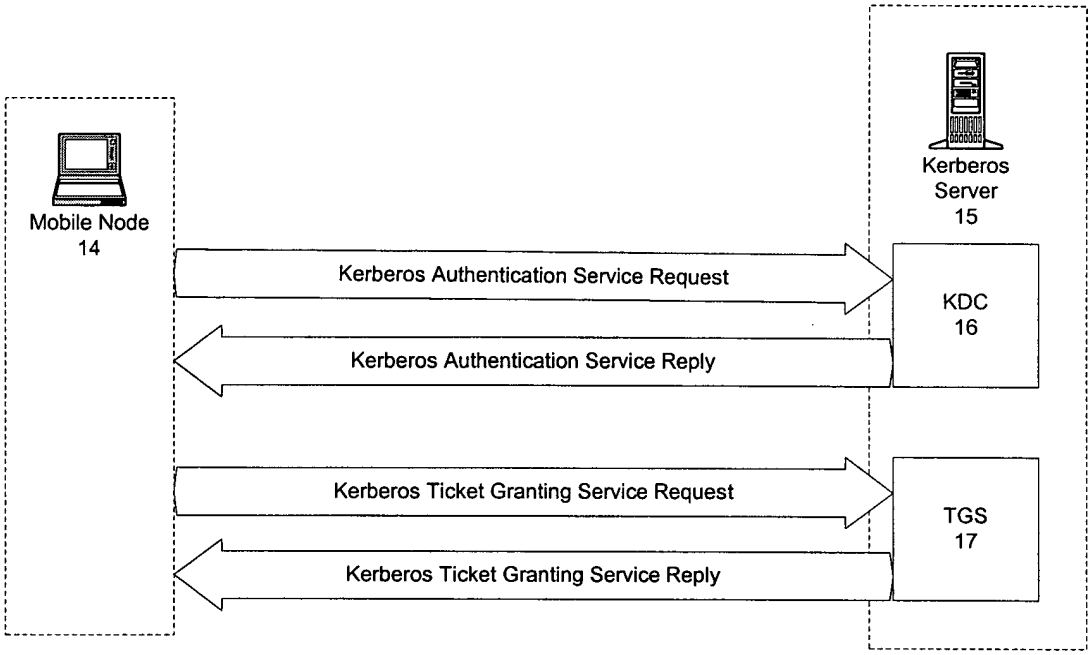
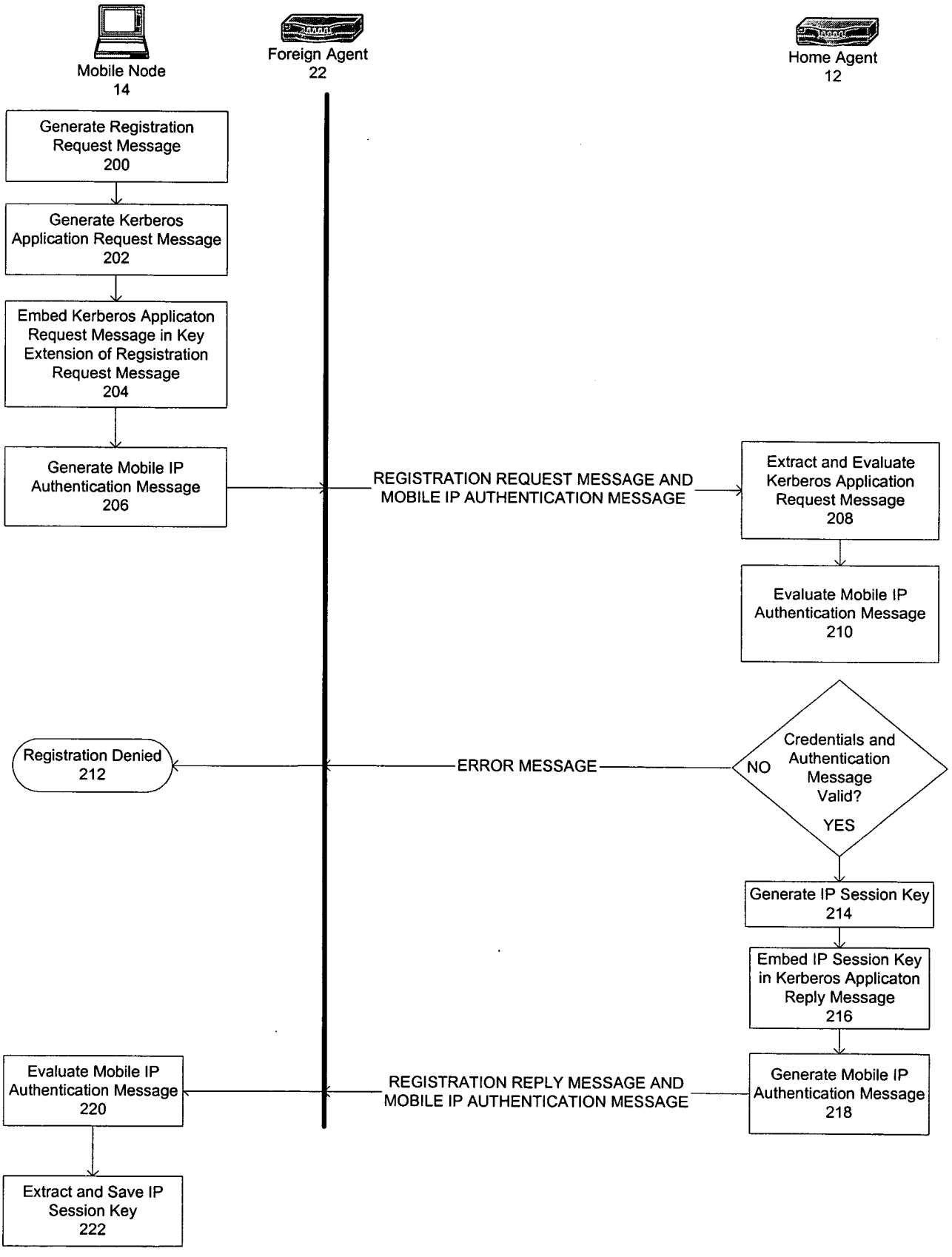

Mobile Node
14
Kerberos
Server
15
Kerberos Authentication Service Request
KDC
16
Kerberos Authentication Service Reply
Kerberos Ticket Granting Service Request
TGS
17
Kerberos Ticket Granting Service Reply

FIG. 4


Mobile Node
14
Foreign Agent
22
Home Agent
12
Generate Registration Request Message
200
Generate Kerberos Application Request Message
202
Embed Kerberos Applicaton Request Message in Key Extension of Regsistration Request Message
204
Generate Mobile IP Authentication Message
206
REGISTRATION REQUEST MESSAGE AND MOBILE IP AUTHENTICATION MESSAGE
Extract and Evaluate Kerberos Application Request Message
208
Evaluate Mobile IP Authentication Message
210
Credentials and Authentication Message Valid?
NO
YES
ERROR MESSAGE
Registration Denied
212
Generate IP Session Key
214
Embed IP Session Key in Kerberos Applicaton Reply Message
216
Generate Mobile IP Authentication Message
218
REGISTRATION REPLY MESSAGE AND MOBILE IP AUTHENTICATION MESSAGE
Evaluate Mobile IP Authentication Message
220
Extract and Save IP Session Key
222